

## Abstract of Disclosure:

Without of affect of sulfur in fuel, NOx in exhaust  
gas is decomposed completely using discharge and low  
5 temperature of 300 C degree, to establish technique for  
generating NO<sub>2</sub> for necessary to oxidize a particle  
substance in a real time. The generated NO<sub>2</sub> and ozone and  
active oxygen generated in oxygen atmosphere are used an  
oxidation agent the particle substance is decomposed  
10 completely using discharge and low temperature of 300 C  
degree. As to NOx in exhaust gas, No is decomposed  
completely using a thin and narrow wire shape bear wire and  
NO<sub>2</sub> for necessary to the particle substance is generated  
and is processed in response to operation condition of the  
15 engine in low temperature of 300 C degree.

[Selection Figure] Fig. 1